Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for manufacturing thin film devices comprising:

during a polishing process, irradiating white light onto ~~an area of~~ a thin film device having an optically transparent film formed thereon~~;, during polishing;~~

detecting ~~reflected~~ light reflected from said ~~area of said~~ thin film device due to the irradiation of said white light when said thin film device is at a predetermined position, a position of said thin film device being determined based on information from a position sensor and a rotation detector;

calculating a spectral waveform of said detected light;

correcting distortions in the spectral waveform; and ~~of said reflected light which is distorted by slurry used during polishing; and~~

determining ~~the~~ a thickness of said optically transparent film at said predetermined position ~~on said area by~~ using information from the spectral waveform of the ~~reflected~~ light thus detected.

2. (currently amended) The method for manufacturing thin film devices according to claim 1, wherein said ~~areas~~ predetermined position is ~~are~~ determined on the basis of previously measured information for the film thickness distribution of thin film devices created by the same process as said thin device.

3. (currently amended) A method for manufacturing thin film devices comprising:

determining a set of measurement positions on a thin film device on the basis of spectral waveform information;

(i) during a polishing process, irradiating white light onto an optically transparent film formed on ~~an area of a~~ said thin film device ~~during a polishing process~~ when said thin film device is at one of said measurement positions, a position of said thin film device being determined based on information from a position sensor and a rotation detector;

(ii) detecting ~~reflected~~ light reflected from said ~~area of said~~ thin film device due to the irradiation of said white light;

~~setting regions for measuring the film thickness using information relating to a characteristic quantity of a spectral waveform of said reflected light generated by said thin film device;~~

(iii) calculating a spectral waveform of said detected light;

(iv) correcting distortions in the spectral waveform of said reflected light ~~which is distorted by slurry used during the polishing process~~;

(v) determining ~~the~~ a thickness of said optically transparent film at said one of said measurement positions ~~said regions by~~ using information from the corrected spectral waveform of the reflected light ~~in the regions thus set~~; and

monitoring said polishing process by performing steps (i) through (v) for one or more of said measurement positions. ~~using the information for the thickness of the optically transparent film thus determined~~.

4. (currently amended) The method for manufacturing thin film devices according to claim 3, wherein the measurement positions are determined based on a predetermined characteristic quantity of said spectral waveform information. ~~said regions for measuring film thickness are determined using said spectral waveform of said reflected light.~~

5. (currently amended) A method for manufacturing thin film devices comprising:

setting measurement positions for determining a thickness of an optically transparent film formed on the surface of a thin film device;

(i) during a polishing process, irradiating white light onto said ~~an~~ optically transparent film when said thin film device is at one of said measurement positions, a position of said thin film device being determined based on information from a position sensor and a rotation detector; ~~formed on the surface of a thin film device, during a polishing process;~~

(ii) detecting light reflected ~~light~~ from said thin film device due to the irradiation of said white light;

~~setting prescribed regions for determining the film thickness;~~

(iii) calculating a spectral waveform of said detected light;

(iv) correcting distortions in the spectral waveform; ~~of said reflected light which is distorted by slurry used during the polishing process;~~

(v) determining ~~the~~ a thickness of said optically transparent film at said one of said measurement positions on the basis of the corrected spectral waveform ~~of said reflected light from the prescribed regions thus set~~; and

monitoring said polishing process by performing steps (i) through (v) for one or more of said measurement positions. ~~using the information for the thickness of the optically transparent film thus determined.~~

6. (currently amended) The method for manufacturing thin film devices according to claim 5, wherein a plurality of ~~prescribed regions~~ measurement positions for determining said film thickness are set, the film thickness at each of the plurality of ~~regions~~ measurement positions thus set is determined, information relating to the film thickness distribution on said thin film device is obtained, and said polishing process is monitored using the information relating to the film thickness distribution thus obtained.

7. (currently amended) A method for manufacturing thin film devices comprising:

(i) during a polishing process, irradiating white light onto an optically transparent film formed on ~~prescribed regions of~~ a thin film device when said thin film device is at a predetermined position, a position of said thin film device being determined based on information from a position sensor and a rotation detector; ~~during polishing;~~

(ii) detecting light reflected ~~light~~ from said thin film device due to the irradiation of said white light;

(iii) calculating a spectral waveform of said detected light;

(iv) correcting distortions in the spectral waveform; ~~of said reflected light which is distorted by slurry used during the polishing process;~~

(v) determining ~~the~~ a thickness of said optically transparent film at said predetermined position ~~by~~ using information relating to said corrected spectral waveform of the reflected light ~~from said prescribed positions~~; and

monitoring said polishing process by performing steps (i) through (v) for said predetermined measurement position. ~~using the information for the thickness of the optically transparent film thus determined.~~

8. (currently amended) The method for manufacturing thin film devices according to claim 7, wherein the information relating to said corrected spectral waveform is the reflection intensity of said corrected spectral waveform.

9. (currently amended) The method for manufacturing thin film devices according to claim 7, wherein the information relating to said corrected spectral waveform is the frequency spectrum intensity of said corrected spectral waveform.

10. (currently amended) The method for manufacturing thin film devices according to claim 3, wherein said ~~regions~~ predetermined position for measuring film thickness ~~are~~ is determined using the reflectivity of ~~said area of~~ said thin film device with respect to said white light.

11. (currently amended) The method for manufacturing thin film devices according to claim 3, wherein said ~~regions~~ measurement positions for measuring film thickness are determined using ~~the~~ a frequency spectrum of said spectral waveform of said reflected light.